#5

SEQUENCE LISTING

<110> Mitsuhashi, Kazuya
      Yamamoto, Hiroaki
      Matsuyama, Akinobu
      Tokuyama, Shinji

<120> D-AMINOACYLASE AND GENE ENCODING THE SAME

<130> 06501-072001

<140> US 09/770,517
<141> 2001-01-26

<150> JP 2000-019080
<151> 2000-01-27

<150> JP 2000-150578
<151> 2000-05-22

<160> 27

<170> PatentIn Ver. 2.0

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<212> DNA
<213> Hypomyces mycophilus

<400> 1
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aatcctacag atgaggagtg ccggacaact ctcaaaggcg ttggcatgtt tgaatggcag  420
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<211> 558
<212> PRT
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<400> 2

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Ile Ala Lys Ile Gly Asn Pro Gly Ser Ile Asn Ala Thr Pro Asp Thr
        35                  40                  45
Arg His Leu Asp Val Thr Gly Tyr Ile Leu Ser Pro Gly Phe Ile Asp
    50                  55                  60
Met His Ala His Ser Asp Leu Tyr Leu Leu Ser His Pro Asp His Glu
65                  70                  75                  80
Ala Lys Ile Thr Gln Gly Cys Thr Thr Glu Val Val Gly Gln Asp Gly
                85                  90                  95
Ile Ser Tyr Ala Pro Ile Arg Asn Val Asp Gln Leu Arg Ala Ile Arg
                100                 105                 110
Glu Gln Ile Ala Gly Trp Asn Gly Asn Pro Thr Asp Glu Glu Cys Arg
                115                 120                 125
Thr Thr Leu Lys Gly Val Gly Met Phe Glu Trp Gln Thr Ile Gly Glu
130                 135                 140
Tyr Leu Asp Cys Leu Glu Arg Asn Arg Thr Ala Thr Asn Val Ala Met
145                 150                 155                 160
Leu Val Pro Gln Gly Asn Leu Arg Leu Leu Ala Cys Gly Pro Tyr Asp
                165                 170                 175
Thr Pro Ala Ser Ala Glu Glu Ile Gln Asp Gln Ile Gln Leu Leu Arg
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Glu Ala Met Ala Gln Gly Ala Val Gly Met Ser Ser Gly Leu Thr Tyr
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Thr Pro Gly Met Tyr Ala Ser Thr Ser Glu Leu Ala Ser Leu Cys Ala
210                 215                 220
Ala Leu Ala Gln Glu Phe Pro Gly Ala Phe Tyr Ala Pro His His Arg
225                 230                 235                 240
Ser Tyr Gly Phe Gln Ala Ile Glu Ser Tyr Ala Glu Met Leu Asp Leu
                245                 250                 255
Gly Glu Ser Thr Gly Cys Pro Ile His Leu Thr His Ala Thr Leu Asn
                260                 265                 270
Phe Ser Glu Asn Lys Gly Lys Ala Pro Val Leu Ile Ser Met Val Asp
                275                 280                 285
Lys Ser Leu Ala Ala Gly Val Asp Val Thr Leu Asp Thr Tyr Pro Tyr
290                 295                 300
Leu Pro Gly Cys Thr Thr Leu Ala Ala Leu Leu Pro Ser Trp Ala Ser
305                 310                 315                 320
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Ala Gly Gly Pro Gln Glu Thr Leu Lys Arg Leu Glu Asp Ala Glu Ser
                    325   330   335
Arg Glu Lys Ile Arg Ile Ala Val Glu Ile Lys Gly Cys Asp Gly Gly
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His Gly Ile Pro Thr Asn Trp Asp Glu Ile Gln Ile Gly Thr Thr Asn
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Glu Pro Ser Ile Ala Ser Tyr Ser Gly Arg Arg Leu Ser Glu Val Ala
        370   375   380
Gln Ser Val Gly Lys Pro Thr Ile Glu Val Phe Phe Glu Ile Leu Gln
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Lys Asp Lys Leu Ala Thr Ser Cys Ile Met His Val Gly Asn Glu Glu
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Asn Val Arg Gln Ile Met Gln His Arg Val His Met Ala Gly Ser Asp
                420   425   430
Gly Ile Leu His Gly Gln Thr Leu His Pro Arg Ala Tyr Gly Thr Phe
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Thr Arg Tyr Leu Gly His Tyr Ser Arg Glu Leu Ser Leu Val Ala Leu
    450   455   460
Pro Ser Met Ile Ala His Leu Thr Ser Arg Pro Ala Lys Arg Leu Ser
465   470   475   480
Val Tyr Pro Tyr Arg Gly Leu Ile Ala Glu Gly Ser Ala Ala Asp Ile
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Val Val Phe Asn Pro Glu Thr Val Lys Asp Met Ser Thr Tyr Glu Glu
                500   505   510
Pro Lys Val Pro Ser Arg Gly Ile Arg Phe Val Leu Val Asn Gly Gln
            515   520   525
Ile Ala Val Asp Glu Gly Lys Met Thr Gly Thr Arg Gly Gly Lys Thr
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Leu Arg Arg Ser Thr Asp Gly Lys Val Lys Ala Arg Asp Glu
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<210> 3
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 3
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<210> 4
<211> 20
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<213> Artificial Sequence

<220> misc. feature
<221> (18)
      n is A,T,C, or G

<223> Artificially Synthesized Primer Sequence

<400> 4
ttcatcgaca tgcaygcnca
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<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence

<220> misc. feature
<221> (3, 6, 15)
       n is A,T,C, or G

<223> Artificially Synthesized Primer Sequence

<400> 5
tgnggngcrt craangcytg
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<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence

<220> misc. feature
<221> (3, 9)
       n is A,T,C, or G

<223> Artificially Synthesized Primer Sequence

<400> 6
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<210> 7
<211> 321
<212> DNA
<213> Hypomyces mycophilus

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cgaagagctg gagctacatg gcctggcaat gccgaacctg ggcagtataa acgagcaatc 180
catcgccggc gccatatcta caggcacaca cggcagcagc atccaccacg gcctcatgtc 240
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agacgaatac ccccaagcct t
                                                                   321

<210> 8
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<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 8

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aggccaaaat cacccaagga                                                    20


<210> 9
<211> 20
<212> DNA
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<220>
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<400> 9
attggggaat acttggattg                                                    20

<210> 10
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<212> DNA
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<220>
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<400> 10
ctggttctttt ccgcctcaga                                                   20

<210> 11
<211> 20
<212> DNA
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<220>
<223> Artificially Synthesized Primer Sequence

<400> 11
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<210> 12
<211> 1325
<212> DNA
<213> Hypomyces mycophilus

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agaggctatg gctcagggtg ctgtcgggat gtctagtggt ctcacttata cacccggcat   180
gtatgcttcc acgtcggaac tagcttctct gtgcgcggcc ctcgcacaag aatttccagg   240
tgcattctat gcgccacatc atagaagtta tgggttccag gccatcgaaa gttatgccga   300
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ccatggtatt ccaaccaact gggacgaaat ccagatcggg acgactaatg aaccatcaat   660
cgcatcgtat tctggtcgca ggctatcaga agtggcacag tctgttggaa agccgaccat   720
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cgaagtcttt ttcgagattc tgcaaaagga taagctcgca acgagctgta tcatgcatgt  780
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<210> 13
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<220>
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<400> 13
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<210> 14
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<212> DNA
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<220>
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<400> 14
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<210> 15
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<220>
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<400> 15
atcgccctca actggtctac   20

<210> 16
<211> 20
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<220>
<223> Artificially Synthesized Primer Sequence

<400> 16
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<210> 17
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<400> 17
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<210> 18
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 18
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<210> 19
<211> 20
<212> DNA
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<220>
<223> Artificially Synthesized Primer Sequence

<400> 19
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<210> 20
<211> 253
<212> DNA
<213> Hypomyces mycophilus

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aatcttggca atcagtccct tcgaaaccag cacatcggcc acaaagggct gggctgcttc 180
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gaattcttct ggt
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<210> 21
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 21
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<210> 22
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 22
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<210> 23
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<212> DNA
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<220>
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<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 24
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<210> 25
<211> 1897
<212> DNA
<213> Hypomyces mycophilus

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<212> PRT
<213> Hypomyces mycophilus

<400> 26

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            20                  25
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<212> PRT
<213> Hypomyces mycophilus

<400> 27

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Val Leu Ala Asp Glu Tyr Pro Gln Ala Phe Tyr Ala Pro His Ala Tyr
 1               5                   10                  15
Ser Arg Gly Phe
            20
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